

Technical Disclosure Commons

Defensive Publications Series

July 20, 2018

A METHOD FOR AUTOMATIC INPUT LANGUAGE SWITCHING

HP INC

Follow this and additional works at: https://www.tdcommons.org/dpubs_series

Recommended Citation

INC, HP, "A METHOD FOR AUTOMATIC INPUT LANGUAGE SWITCHING", Technical Disclosure Commons, (July 20, 2018)

https://www.tdcommons.org/dpubs_series/1347



This work is licensed under a [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/).

This Article is brought to you for free and open access by Technical Disclosure Commons. It has been accepted for inclusion in Defensive Publications Series by an authorized administrator of Technical Disclosure Commons.

A Method for Automatic Input Language Switching

Abstract: A technique automatically switches the input language of a computing device based on the input of the user. The language of the text being entered by the user is detected, and device is switched to the corresponding input method, keyboard layout, and the prediction dictionary for that language.

This disclosure relates to the field of computer systems.

A technique is disclosed that automatically switches the input language of a computing device based on the input of the user. The switch then updates the corresponding input method, keyboard layout, and the prediction dictionary for the language to which the device is switched.

It is not uncommon that a user needs to provide inputs to a device in multiple languages. For example, a user could desire to type in English and Spanish on a cell phone, or type in Chinese and English on a PC. In such cases, the user has to manually tell the device what language is to be used before starting typing on the device. To switch to another language (including switching the input method, keyboard layout and the dictionary for input prediction), the user either presses a key-combination to activate a new language, or selects the language from a menu in the user interface, both of which require the user to stop inputting in order to perform the switch. As a result, the user experience is not good, because the user's input is interrupted by the actions to switch between different languages.

Some language input methods allow typing in more than one language without switching. For example, most Chinese input methods allow typing in Chinese when pressing the space key to select Chinese character(s), and typing in English when pressing the enter key. E.g. typing "nihao" and pressing ENTER will send "nihao" to the device, while typing "nihao" and pressing SPACE will send ".好" to the device. Other input methods would allow typing Spanish in an English keyboard. The user types something like "nino" on the keyboard and the input method will prompt "niño", and the user can select the Spanish word as input. These methods make it possible to input multiple languages without switching the language, but typing in the "secondary" language is very slow because there is no support of the corresponding keyboard layout, word prediction etc.

According to the present disclosure, automatic language switching based on the user's input is provided such that the user does not need to manually perform the switch, which provides an improved user experience and usability to the device.

A dictionary, which resides either locally in the device or remotely outside of the device (for instance, a cloud server), stores most, if not all, words of the languages that the device supports. A background service, running in the device, keeps track of the user input against the dictionary. When the service detects that more than a predefined number of words in a language have been input to the device, the service switches to that language automatically. The predefined value is configurable and typically greater than 1.

As an example, consider the case where the predefined number of words X is set to 2. The user has been typing in English and then he types "El", and then he continues to type "nino" and selects "niño" as the input from the prompts of the input method. The service

then detects there are two Spanish words being input to the device, and performs an automatic language switch to Spanish from English. The user sees the keyboard layout changed to a Spanish one and, as he types, the prompted words from the input method will have Spanish words showing at a higher priority than English words. The user thus is thereafter typing in a Spanish language environment without explicitly having switched the language.

The disclosed method advantageously provides an automatic way to switch the input language for the user which does not interrupt the user's input, therefore improving the user experience and the usability of the device.

Disclosed by Yang Huang, HP Inc.